

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Proposed Amendments to the Service Rules)	PS Docket No. 13-97
Governing Public Safety Narrowband Operations in)	
the 769-775/799-805 MHz Bands)	
)	
The Development of Operational, Technical and)	WT Docket No. 96-86
Spectrum Requirements for Meeting Federal, State)	
and Local Public Safety Communications)	
Requirements Through the Year 2010)	
)	
National Public Safety Telecommunications)	RM-11433
Council Petition for Rulemaking on Aircraft Voice)	
Operations at 700 MHz)	
)	
National Public Safety Telecommunications)	RM-11433
Council Petition for Rulemaking to Revise 700)	
MHz Narrowband Channel Plan)	
)	
Region 24 700 MHz Regional Planning)	WT Docket No. 96-86
Committee Petition for Rulemaking)	PS Docket No. 06-229
)	
State of Louisiana Petition for Rulemaking)	RM-11577

ERRATUM

The State of Florida is submitting the following comments to replace the incorrect attachment filed on June 18, 2013, for the comment period of this notice of proposed rulemaking.

**COMMENTS BY THE STATE OF FLORIDA
TO THE NOTICE OF PROPOSED RULEMAKING**

1. The State of Florida, Division of Telecommunications, Bureau of Public Safety offers these comments to the Notice of Proposed Rulemaking (the *NPRM*) in the above referenced matter. As a licensed user of public safety spectrum, and an agency with regulatory responsibility for other state and local public safety agencies within Florida, we have a direct interest in the outcome of this proceeding. Our comments are divided into the same broad categories as the *NPRM*, and include a reference to the paragraph numbers of the *NPRM* to which they respond.
2. We co-chair the Florida Executive Interoperability Technologies Committee - FEITC (a.k.a., State Interoperability Executive Committee – SIEC).

3. We are responsible for administering Florida's 700 MHz Public Safety Interoperability Channel Plan.¹
4. We also are the licensee for the State Use 700 MHz channels on behalf of state agencies.

IV. Notice of Proposed Rulemaking

A. December 31, 2016 Deadline for Narrowbanding Transition to 6.25 Kilohertz Bandwidth Technology

5. (Re: ¶¶77-91) We generally agree with Region 24, the State of Louisiana, the Ohio Fire Alliance Leadership, the Association of Public-Safety Communications Officials-International, Motorola, and the Regional Wireless Cooperative in the reference paragraphs. We request the Commission to postpone the deadline until at least 2019 or beyond, which allows for at least 10 years after DTV transition and permit the minimum life expectancy of equipment purchased in 2009. Equipment purchased after 2009 should be afforded a later deadline; otherwise, public safety agencies will be burdened with potential early equipment replacement. Furthermore, equipment life expectancy can be extended with preventive maintenance or exceptional equipment performance. Given economic challenges public safety agencies face, waiver considerations should be afforded these agencies to postpone the narrowbanding deadline specific to their instance when justified and not impacting nearby 6.25 kHz narrowbanding needs. Should vendor equipment not be type accepted for Project 25, Phase 2 for 6.25 kHz operations by the deadline, we also request the Commission consider postponing the deadline further than at least 2019.

Extending the narrowbanding deadline is preferred over eliminating it altogether. In the event of a postponed deadline, the new deadline should be reconsidered in the future as new equipment technology and other factors are known.

Regarding a broadband platform referenced in paragraph 88, we see data operations afforded in a broadband platform initially. Hence, the Commission should not reconsider 700 MHz narrowband operation onto a broadband platform at this juncture and at the expense of voice channels. The narrowband deadline comments above are specific to voice operations, which may not be afforded in a broadband platform until after data operations are established and after voice on a broadband platform is proven reliable for public safety communications.

B. 2010 NPSTC Petition – Air-Ground Communications on Secondary Trunking Channels

6. (Re: ¶¶92-102) Florida's 700 MHz Public Safety Interoperability Channel Plan does not include these channels for secondary trunked operation combined with the adjacent 12.5 kHz Interoperable Use channels. In Florida, secondary trunked operation is limited to only the 12.5 kHz Interoperable Use channels, which allows us to generally agree with the National Public Safety Telecommunications Council (NPSTC) proposal.

¹ Florida's 700 MHz Public Safety Interoperability Channel Plan can be found at:
<http://www.dms.myflorida.com/content/download/72526/432829/version/4/file/700+IO+Plan+Final+V3+05+-+First+Edition+w-DMS+wrap.pdf>.

Air-ground communications historically has operated secondary to land-mobile communications. We recommend these channels be dedicated specifically for air-ground communications on a primary basis, albeit a limited number of channels within and between regions. Ground units should be permitted to operate on these channels only in conjunction with aircraft communications.

We have reservation with limiting the effective radiated power (ERP) to 2 watts in paragraph 92. It will limit operations specifically to the vicinity of the scene of the incident similar to how talk-around or "Direct" mode already does. Consideration should be in favor of the current Part 90 rules described in paragraph 94 (47 C.F.R. §90.423). Ground-based communications 700 MHz does not currently exist on these channels in Florida per our opening paragraph in these comments. Further clarification is needed to determine if fixed base radio operation is included in this consideration or merely mobile and portable radio operations.

Reference to CAPRAD in paragraph 95 implies these channels are candidate to be categorized General Use channels, or at least treated similarly in and between Region Planning Committees. Eight channels may not provide enough capacity to treat them as traditional General Use channels throughout and between regions. Instead, we agree with NPSTC in paragraph 101 suggesting SIEC's administer these channels, and incorporate them into each State's Interoperability Channel Plan. The limited quantity of these channels may be better served if categorized Interoperable Use channels, subject to the Project 25 standards, subject to NPSTC's efforts on "...issues and standards ..." addressed later in paragraph 115, and cooperatively used for conventional and trunked operation for 12.5 kHz and future 6.25 kHz bandwidths. Categorized Interoperability Use channels, there cannot be co-channel interference – just co-channel chaos between independent events near each other not cooperating, which can be mitigated by the Incident Commander, Communications Unit Leader or associated communications dispatch centers. Adjacent channel power (ACP) limits should apply, which may tether aircraft communications on these channels with secondary operational status to protect the General Use and Interoperable Use channels operating primary land-mobile operations.

We recommend use of these channels be allowed at altitudes up to 1.6 km (1 mile). Treated as Interoperability Use channels, cooperation among user will be expected on this limited number of channels. Assuming fixed base radios will be permitted, mobile-relay sites may be spaced a larger distance apart than traditional land mobile fixed base radio for FCC station class FB or FB2 operations. Given larger distances between mobile relay sites for aircraft, communications with ground units could take place via temporary fixed base radios (FCC station class FBT or FB2T), or in the talk-around or "Direct" mode as aircraft approach the incident and reduce altitude.

These channels could become the catalyst to free up State Use and General Use channels, as well as 800 MHz channels that are currently dedicated by respective licensees for aircraft communications. Albeit, each licensee may appreciate the benefit of more secure communications on non-Interoperable Use channels, the limited radio frequency spectrum in channel-congested areas may motivate use of Interoperable Use channels on a shared basis.

C. 2008 NPSTC Petition – Proposed Revisions to 700 MHz Narrowband Channel Plan

7. (Re: ¶105-108) Nationwide Interoperability Travel Channel. We generally agree with creating a nationwide interoperability travel channel by re-designating one of the two nationwide interoperability calling channels. As proposed by NPSTC, re-designate the two upper 6.25 kHz channel pairs (681/1641 and 682/1642) as the “Nationwide Interoperability Travel Channel.” Subsequently, this channel should not be referenced as a “Calling Channel” to avoid ambiguity and operational confusion with the resulting one 700 MHz “Calling Channel.” With respect to the national naming convention established by APCO/NPSTC ANS 1.104.1-2010², “TRAV” or relevant naming convention should be established. Talk-around or “Direct” should be allowed on the repeater output of the channel pair between mobile users. FCC station class FB2T (not FB2) should also be allowed on a nationwide basis for mobile repeater systems, which can particularly benefit large convoys where talk-around or “Direct” communications becomes challenging. Additionally, the TRAV channel should not preclude to be a replacement of or usurp the need for using the resulting one 700 MHz “Calling Channel” for local agency contact upon arrival in the incident area or in transit. Finally, FCC station class FB2 should be specifically prohibited to avoid what can be referenced as “co-channel chaos” when two or more co-channel users operate on the same interoperability channel in the same area without cooperative use.
8. (Re: ¶109-111) Tactical Voice Communications on Data Interoperability Channels. We generally agree with NPSTC’s proposal in paragraph 110. We don’t see it having adverse impact on primary data-only interoperable communications in Florida. As the administrator of the 700 MHz Interoperability Use channels in Florida, we have received no applications for the data interoperability channels in Florida, nor from adjacent states of Georgia, Alabama, or Mississippi³. In the event of such applications in the future, we can avoid the designated data-only interoperability channel used for secondary tactical voice communications to afford it the highest degree of permanence. After FirstNet reduces the need for the data interoperability channels, remove the secondary limitation to create primary tactical voice communications. Creating primary tactical voice communications on the proposed channel does not upset the channel naming convention per APCO/NPSTC ANS 1.104.1-2010. “7DATA89” would become “7TAC89.”

As described for the Nationwide Interoperability Travel Channel previously in Comment 7, FCC station class FB2T (not FB2) should be allowed on a nationwide basis for mobile repeater systems on this secondary tactical voice communications channel, which can particularly benefit Incident Command communications where talk-around or “Direct” communications becomes challenging. Additionally, talk-around or “Direct” should be allowed on the repeater output of the channel pair between mobile users. Furthermore, this channel should not preclude to be a replacement of or usurp the need for using the primary 700 MHz “Tactical Channels” that may already be providing tactical voice communications in the incident area. Florida’s 700 MHz Public Safety Interoperability Channel Plan establishes “...minimum of eight interoperability channels... in each subscriber unit” and expects this minimum set of primary tactical voice channels to be

² APCO/NPSTC ANS 1.1104.1-2010 can be found at <http://www.npstc.org/documents/APCO-NPSTC-ANS1-104-1web.pdf>.

³ The State of Mississippi is considered “adjacent state” because its state line is within 70 miles of two counties in the western panhandle of Florida.

progressively implemented at fixed locations initially⁴. Finally, FCC station class FB2 should be specifically prohibited to avoid what has been described previously in Comment 7 as “co-channel chaos.”

9. (Re: ¶112-120) Reserve Channels. We generally agree with the NPSTC proposal on paragraphs 113 through 115; but, not necessarily on all forty-eight 6.25 kHz channel pairs (or twenty-four 12.5 kHz channel pairs) and should be categorized as Interoperable Use channels. Additional Interoperable Use channels introduce consideration to augment the national naming convention introduced in Comment 8 with additional channel names.

We believe a percentage of these channel pairs referenced in paragraph 120 should remain as Reserve Channels to accommodate waiver considerations like LA-RICS in paragraph 117, which could potential provide relief in channel-congested areas and avoid T-Band implications. We recommend against designating this percentage as State Use channels. It may imply state agencies, not local agencies, could benefit. Alternatively, state and local agencies might benefit designating these channels as General Use channels for Region Planning Committees to manage via CAPRAD⁵; but, the interoperable nature of operations compels consideration for these channels as Interoperable Use channels.

We caution against consideration for “...deployable equipment to operate on the narrowband channels already designated for general and/or state use...” except when supplementing permanent facilities of an agency. In the spirit of interoperable voice communications, we emphasize establishing channels that will be used similarly nationwide. Currently, Florida has a license for deployable equipment to operate on 700 MHz interoperable tactical channels available for secondary trunked operation as well as primary conventional operation. Designating narrowband reserve channels for deployable trunked infrastructure would present Florida an opportunity to migrate its deployable equipment from secondary to primary trunked operation. We want to emphasize Project 25 standards for these narrowband reserve channels and addressing “...issues and standards...” referenced with NPSTC in paragraph 115.

We recommend applying Adjacent Channel Power (ACP) limitations to fixed infrastructure on the Reserve Channels to protect State-Use, General-Use Interoperable-Use channels. Due to the temporary locations inherent with deployable systems, administering ACP limitations become challenging for FCC station class FB2T.

10. (Re: ¶121-125) Power Limit for Low Power Channels. We agree with NPSTC arguing to increase the effective radiated power (ERP) limitation to 20 watts; but, with the caution Motorola suggested on the nationwide itinerant channels. We also agree with Motorola’s recommendation to limit antenna height to 20 feet above ground level (AGL). As for vehicular repeater systems (VRS) operating on General Use or State Use channels, we defer to the Region Planning Committees and State agencies to determine VRS an appropriate use of respective channels they are responsible to administer. The nationwide itinerant channels should be considered as Interoperable Use channels, subject to the same interoperability requirements already established and resulting from

⁴ 7CALL50, 7CALL70, 7TAC55, 7TAC75, 7TAC56, 7TAC76, 7GTAC57 and 7GTAC77

⁵ CAPRAD is the **C**omputer **A**ssisted. **P**re-coordination **R**esource **A**nd **D**atabase system used by the Florida Region-9 committee to manage 700 MHz General Use channels.

the outcome of this rulemaking.

Two VRS channels (FCC station class MO3) are identified in the Interoperable Use channels we recognize as 7MOB59 and 7MOB79 in Florida's 700 MHz Public Safety Interoperability Channel Plan, and are licensed for VRS operation in Orange County, Florida. Because the FCC rules were vague on these two channels, Orange County and we collectively determined what various FCC rules could be applied to these two VRS channels and incorporated that determination in Florida's 700 MHz Public Safety Interoperability Channel Plan. We recommend §5.1.3 of Florida's 700 MHz Public Safety Interoperability Channel Plan be considered in this rulemaking for VRS that may result from these low power channels, the General Use, or the State Use channels. Rely on the Region Planning Committees, determine what General Use channels may be administered for VRS use and rely on the Administrator of the State Use channels similarly. Specifically, we recommend the nationwide itinerant low power channels for VRS use that would not be served by the two Interoperable Use channels described above (i.e., agency-specific needs).

Although increasing the ERP from 2 watts to 20 watts increases the potential interference at or near an incident, defer mitigation of potential interference to the Incident Commander (more specifically the Communications Unit Leader) or the local Communications Manager responsible for incident communications. This approach should be applied to all twenty low power channels.

D. Miscellaneous Issues

11. (Re: ¶126-128) *Project 25 Compliance Assessment Program*. We fully agree with conforming to the TIA Project 25 (P25) technical standards. We believe the P25 Compliance Assessment Program (P25 CAP) should be required compliance for all vendors and P25 CAP certified by an independent testing program (not vendors self-certifying themselves), agreeing with the Commission's proposal in paragraph 127. We believe it would enhance interoperability by putting P25 compliance on the same level. While this may impose a cost on vendors, it may only increase equipment cost by a negligible amount as it is absorbed across vendor sales of each model of P25-compliant equipment. This should greatly outweigh the lack of expected interoperable communications when the protection and safety of lives and property are in the balance.

Vendor literature should clearly and specifically indicate P25 CAP was certified by an independent testing program. Absent an independent testing program certifying P25 CAP, the vendor should not indicate nor imply P25 CAP certification whatsoever on their vendor literature. Similar to electric appliances certified by Underwriters Laboratories, this allows the public safety agencies options to purchase P25 CAP certified equipment for General Use or State Use channels. For the Interoperable Use channels, P25 CAP certification should be a requirement. If Wi-Fi, Bluetooth, and other communications standards can be appreciated globally interoperable by the general public, so too should the general public expect public safety equipment conforming to the TIA Project 25 (P25) technical standards when lives and property are factored in.

An effective date for P25 CAP certification should be established specifically for equipment capable of operating on the Interoperable Use channels. The effective date should coincide with the effective date of rules adopted in this proceeding. As for equipment already purchased and implemented by public safety agencies, they should

be afforded a transition period to bring their Interoperable Use channels into compliance – particularly if the vendor does not obtain P25 CAP certification for affected model already operational. This imposes equipment replacement and unanticipated costs prior to appreciating the complete life cycle for those affected models. We defer addressing a transition period for the Reply Comments.

12. (Re: ¶129-135) ACP Requirements for Class B Signal Boosters. Florida's experience with signal boosters is limited to 800 MHz primarily. However, we prefer clean spectrum whenever technologically possible. Equipment type-accepted and in operation prior to Dekolink's claim may be candidate for "grandfathering" if it operates out of compliance with the adjacent channel power (ACP) limits when simultaneously transmitting two or more signals; but, such equipment would operate on a secondary basis. The Commission should require vendors to notify their customers of possible radio frequency interference (RFI) so the customer can determine corrective measures proactively before RFI is determined or reactively after RFI is determined. Equipment currently type-accepted should have a deadline imposed for expiration of type-acceptance to allow vendors to upgrade signal boosters to clean spectrum operation. New type-acceptance requests should comply with the ACP limits when simultaneously transmitting two or more signals. Our opinion is to take corrective action as soon as possible in order to prevent a potential nationwide event with signal boosters that could be reminiscent of experiences that led to rebanding the 800 MHz spectrum.
13. (Re: ¶136-141) Narrowband Power Limits. We applaud the Commission for identifying two sets of rules governing power limits – §90.541 and §90.545(b). We agree with the ERP limits of §90.545(b) in place of TPO of §90.541. We also agree with correcting the cross reference proposed in paragraph 139. NPSTC should address its 700 MHz Regional Planning Guidebook, Ver. 2.01, Appendix K for "pre-assignment rules/recommendations."⁶ We also agree the TV/DTV protection requirements of 90.545 addressed in paragraph 141 are no longer necessary.
14. (Re: ¶142-143) Interoperability Network Access Code. We have concern with consideration to deviate from interoperability Network Access Code (NAC), §293. NAC §293 was deliberated by the 700 MHz Public Safety National Coordination Committee (NCC) during its Charter. Only NAC §293 (not §F7E for what is akin to "open squelch") should be maintained for Interoperable Use channels as done similarly for the 800 MHz mutual aid channels known as 8CALL90, 8TAC91, 8TAC92, 8TAC93 and 8TAC93. The 800 MHz mutual aid channels use a Continuous Tone-Coded Squelch System (CTCSS) frequency of 156.7 Hz. Florida's 700 MHz Public Safety Interoperability Channel Plan requires §293 for all interoperable voice channels.

Employing different NACs introduces impediments to interoperable communications. Multiple NACs at the site of an incident should not be implemented on the same channel regardless of frequency – Interoperable Use, General Use, or State Use. Doing so will mask unwanted signals.

15. (Re: ¶144-145) User Access to Interoperability Channels. We agree with requiring only that radios be capable of operating on any of the interoperability channels, albeit sixty-four of the interoperability channels at 6.25 kHz bandwidth or thirty-two of the

⁶ NPSTC 700 MHz Regional Planning Guidebook, Ver. 2.01, APPENDIX K - Simplified 700 MHz Pre-Assignment Rules Recommendation http://www.npstc.org/documents/Appendix-K_V2_0.pdf.

interoperability channels at 12.5 kHz bandwidth. As mentioned in Comment 8, Florida's 700 MHz Public Safety Interoperability Channel Plan (Florida's Plan) establishes a "...minimum of eight interoperability channels... in each subscriber unit." Florida's Plan also states in §4.5.3, "Subscriber units which routinely roam through more than one jurisdiction will require more than the minimum channel set quantity and those with potential nationwide mobility should consider maximizing the number of interoperability channel sets to increase interoperability when roaming (i.e., all 30 voice channel sets)."

16. (Re: ¶146-147) Analog Operations on the Interoperability Channels. We completely disagree with permitting analog mode of operation on the 700 MHz interoperability and share the Commission's concern over allowing both digital and analog modes of operation. The perceived benefits of analog operation is a judgment call by each user's ability to hear the intelligible audio as the radio signal degrades into the noise floor that typically would not be acceptable on continuous basis – sometimes beyond what an equivalent digital operation will provide before the radio signal abruptly drops the audio (usually after the user experiences what could be a moment of dropped audio or other digital characteristics).

Additionally, allowing both analog and digital operations introduce ambiguity and confusion between users. This can lead to multiple users on a common interoperability channel to be on both modes of operation responding to the same incident. This is similar to allowing multiple NACs on the interoperability channels described in Comment 14.

17. For any additional information concerning these comments, contact Mr. Carlton Wells of the Bureau of Public Safety of the State of Florida, Division of Telecommunications at (850)-922-7426, email carlton.wells@dms.myflorida.com

Respectfully submitted,

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Bureau of Public Safety
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June 18, 2013

CWW-DW-LS-NS:Comments to NPRM in FCC13-40

Cc: Joint Task Force Board of Directors
Florida Executive Interoperable Technologies Committee Co-Chairs
Florida Region-9 Committee Chairman